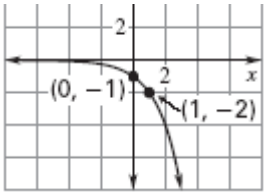
Name: Date: Period:

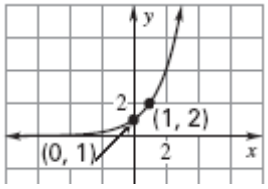
Practice Worksheet: Graphing Exponential Functions

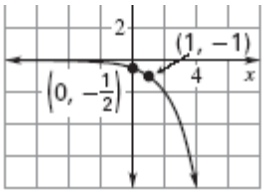
Without a calculator, match each function with its graph.

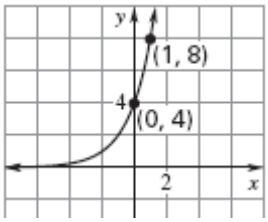
_____1] $f(x) = 2^x$ _____2] $f(x) = -2^x$ _____3] $f(x) = 4(2^x)$

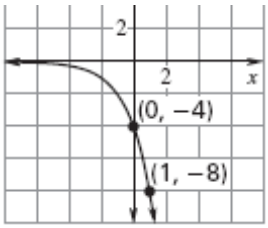
_____4] $f(x) = \frac{1}{2}(2^x)$ _____5] $f(x) = -\frac{1}{2}(2^x)$ _____6] $f(x) = -4(2^x)$

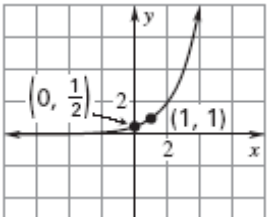
A. 

B. 

C. 

D. 

E. 

F. 

Graph without a calculator. Label the two anchor points and dash in the asymptote.

7] $f(x) = 3(2^{x+2}) - 1$

Growth or decay? Domain:

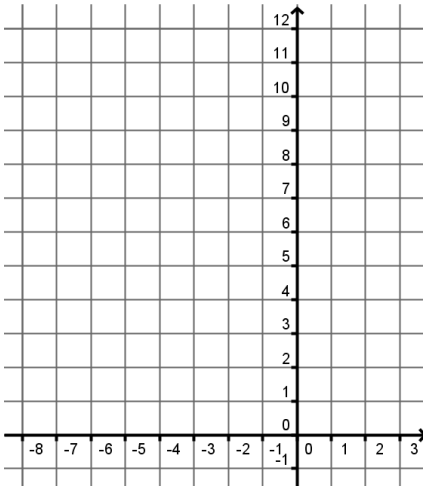
Asymptote: Range:

Transformations:

$(x, 2^x)$			
(0,)			
(1,)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



8] $f(x) = -(4^{x+1}) + 3$

Growth or decay? Domain:

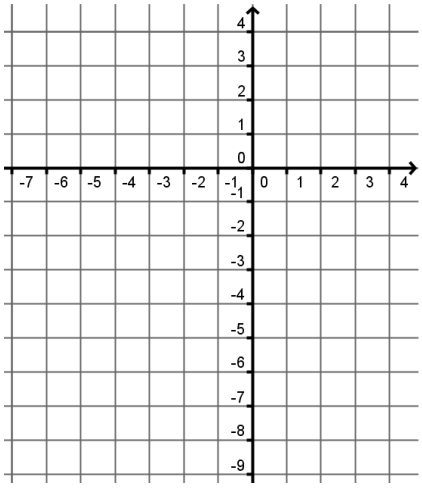
Asymptote: Range:

Transformations:

$(x, 4^x)$			
(0,)			
(1,)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



9] $f(x) = 3\left(\frac{1}{4}\right)^{x-2} + 1$

Growth or decay? Domain:

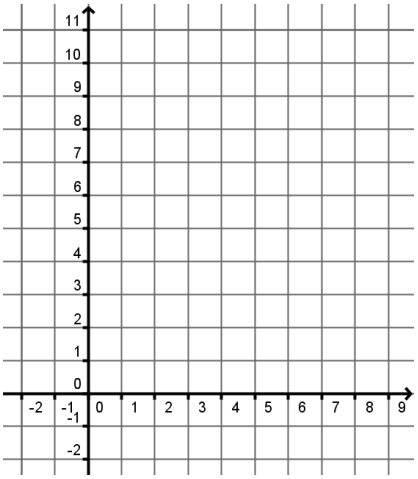
Asymptote: Range:

Transformations:

$\left(x, \left(\frac{1}{4}\right)^x\right)$			
$(0, \quad)$			
$(1, \quad)$			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



10] $f(x) = 2^{x-3} + 2$

Growth or decay? Domain:

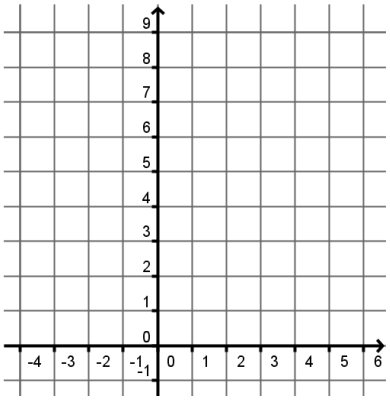
Asymptote: Range:

Transformations:

$(x, 2^x)$		
$(0, \quad)$		
$(1, \quad)$		

Coordinates of the two anchor points:

(____, ____) and (____, ____)



11] $f(x) = -(3^x) + 1$

Growth or decay? Domain:

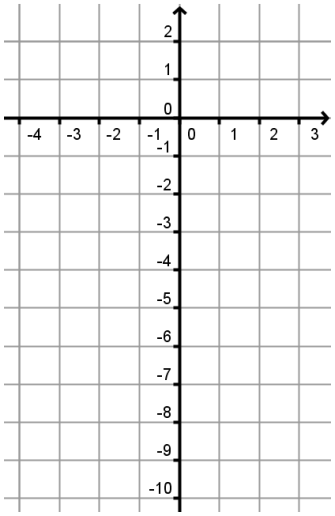
Asymptote: Range:

Transformations:

$(x, 3^x)$		
$(0, \quad)$		
$(1, \quad)$		

Coordinates of the two anchor points:

(____, ____) and (____, ____)



12] $f(x) = -\left(\frac{1}{2}\right)^x - 3$

Growth or decay? Domain:

Asymptote: Range:

Transformations:

$\left(x, \left(\frac{1}{2}\right)^x\right)$		
$(0, \quad)$		
$(1, \quad)$		

Coordinates of the two anchor points:

(____, ____) and (____, ____)